

REMARKS

Reconsideration of the application is respectfully requested.

Claims 1-22 have been rejected. Claims 1, 9, 12, 14, 17, 19, and 20 have been amended. No claims have been cancelled. All amendments are fully supported by the original disclosure. No new matter has been introduced. Accordingly, Claims 1-22 remain pending in the application.

Amendments to the Specification

The specification is amended herein to correct a typographical error on page 8, line 7 ("440" corrected to "430"). Support for the amendment is found at least in Figure 4 and in the first portion of the replaced paragraph, which identifies activation detection device 430 as a camera, and also identifies a first position 440. The amendment corrects an error in a subsequent passage of the replaced paragraph, in which the camera device was incorrectly identified as "440". No new matter is introduced by this amendment.

Rejections under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-6, 9-13 and 19-22 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent App. Pub. No. 2003/0048260 to Matusis ("Matusis"). Applicants respectfully request reconsideration of this rejection for at least the following reasons.

As amended, claim 1 currently recites in part, "a detection mechanism to indicate, prior to an activation of the key by one of the terminating members, which one of said first function and said second function is to be associated with the activation, the detection mechanism indicating the first function when movement of a terminating member of the right hand toward the key is detected and the detection mechanism

indicating the second function when movement of a terminating member of the left hand toward the key is detected, said detection mechanism being equipped to monitor movement of at least a portion of at least one of the user's two hands toward the key." The amendment is supported at least in pg. 7, lines 7-11 and 20-24; pg 8, lines 1-9, 16-19, and 22-25; and Figure 4.

Matusis does not teach these features. First, Matusis teaches that the user must first activate (touch) the key with one fingertip, the fingertip is then identified, and a function is then assigned to the key depending on which of the fingertips was identified as having activated the key. See for example [0042]-[0043], disclosing that the user first touches the sensor to activate it, then "[a]fter the image is obtained, the image is processed 240 to determine which fingertip touched and activated the input sensor." See also [0064], "pattern recognition software algorithm would be able to recognize that fingertip 513-FT of index finger 513 has activated input sensor 520" and [0065], "pattern recognition algorithm could recognize that the user is contacting input sensor 520 with selected finger 513. . . ."

Matusis refers repeatedly to activation of input sensors by touch (see e.g. [0048], [0049], [0050], [0051], [0052]). Because Matusis teaches that the fingertip is identified either **during** or **after** the activation/touching of the input sensor (i.e. key) by the fingertip, Matusis does not teach "a detection mechanism to indicate, prior to an activation of the key by one of the terminating members, which one of said first function and said second function is to be associated with the activation. . . ."

In addition, Matusis does not teach "the detection mechanism indicating the first function when movement of a terminating member of the right hand toward the key is detected and the detection mechanism indicating the second function when movement of a terminating member of the left hand toward the key is detected" [where the indicating occurs *prior to* activation of the key]. Again, as discussed above, Matusis is concerned only with identifying which fingertip has already touched/activated the input sensor, not with using a hand movement toward a key to indicate a function prior to key

activation. Matusis teaches that the imaging means “images a part of the user’s hand large enough to identify the selected fingertip touching and activating input sensor 1110” ([0052]. Imaging occurs during activation/touching of the input sensor [0055]. Even if the imaging means acquires a continuous stream of frames, rather than a single frame taken upon activation of the input sensor, the time of activation must be obtained in order to synchronize the images with the time of activation/contact (see [0055]. Thus, the finger is not identified (and the corresponding function of the input sensor is not selected) **prior to** activation of the input sensor by the finger.

Therefore, Matusis cannot teach the recitations of claim 1 as amended. For at least these reasons, Applicants respectfully submit that claim 1 is allowable over Matusis.

Claims 2-11 depend from claim 1, incorporating its recitations, and are thus allowable over Matusis for at least the same reasons. These claims are also allowable over Matusis for their additional recitations. For example, claim 9 as amended recites a motion detector to monitor movement of at least a portion of at least one of the user’s two hands toward the key. As discussed above, Matusis does not teach this. Paragraph [0045], cited for teaching a motion detector, follows the discussion of [0045] disclosing an input sensor capable of detecting a motion that is performed by the user at the same time when the user activated the input sensor. The “upward motion” and “downward motion” disclosed in [0045] refer to motions of the fingertip across the sensor itself, not motions of the fingertip toward the sensor.

Independent claims 12 and 19 recite subject matter substantially similar to that of claim 1 and are thus allowable for at least the same reasons.

Claim 13 and claims 20-22 depend from claims 12 and 19 respectively, incorporating their recitations, and are thus allowable for at least the same reasons.

Rejections under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 7, 8 and 14-16 under 35 U.S.C. § 103(a) as being unpatentable over Matusis in view of U.S. Patent No. 6,888,532 to Wong ("Wong"). In addition, the Examiner rejected claims 17-18 under 35 U.S.C. § 103(a) as being unpatentable over Matusis in view of U.S. Patent No. 6,538,636 to Harrison ("Harrison"). Finally, in rejecting claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Matusis and Harrison, the Examiner took official notice that MEMS motion sensors are common in the art and that it would therefore have been obvious to combine MEMS motion sensors with the teachings of Harrison. Applicants respectfully request reconsideration of this rejection for at least the following reasons.

Independent claim 14 has been amended to include recitations similar to those discussed earlier with respect to claim 1. The disclosure of Wong cannot remedy the deficiencies of Matusis. Wong merely teaches a detection mechanism with a pressure sensor to detect orientation information, such as whether the user interface features are facing up or down or whether the user is holding the device with left-handedness or right-handedness, and to change the orientation of the user interface based on the detected information. Like Matusis, Wong does not teach a pressure sensor "at least one pressure sensor to monitor movement of a user's terminating hand members with respect to said keyboard toward the key, said monitoring of terminating hand member movement to facilitate providing an indicia of whether the first or the second function is associated with key, prior to activation of the key, depending on whether a terminating hand member of said user that will be used to activate the key with the two different associated functions is determined to be located on the user's right hand or left hand."

Independent claim 17 has been amended to recite, in part, "monitor movement of a user's terminating hand members toward the key, said monitoring of terminating hand member movement to facilitate providing an indicia of whether the first or the second function is associated with key, prior to activation of the key, depending on whether a

terminating hand member that will be used to activate the key on said body, said monitoring of movement to provide an indicia of whether a user's terminating hand member used to activate a key of said keyboard is determined to be located on the user's right hand or left hand." The disclosure of Harrison cannot remedy the deficiencies of Matusis. Harrison merely teaches a device that uses a motion detector to determine orientation and reconfigures the appearance of the display according to the detected orientation.

For at least these reasons, Applicants respectfully submit that claims 14 and 17 are therefore allowable over Matusis, Harrison and Wong, alone or in combination.

Claims 7 and 8 and claims 15-16 depend from claims 1 and 14 respectively, incorporating their recitations, and are thus allowable over the cited references for at least the same reasons.

Claim 18 depends from claim 17, incorporating its recitations, and is thus allowable for at least the same reasons.

Applicants respectfully submit that all pending claims are allowable as amended, and notice of allowance is therefore requested.

CONCLUSION

In view of the foregoing, reconsideration and allowance of all pending claims is respectfully solicited. If the Examiner has any questions concerning the present paper, the Examiner is kindly requested to contact the undersigned at (206) 381-8819.

If any fees are due in connection with filing this paper, the Commissioner is authorized to charge the Deposit Account of Schwabe, Williamson and Wyatt, P.C., No. 50-0393.

Respectfully submitted,
SCHWABE, WILLIAMSON & WYATT, P.C.

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by: /Al AuYeung/

Al AuYeung

Reg. No.: 35,432

1420 Fifth Avenue, Suite 3010
Seattle, Washington 98101
Telephone: (206) 622-1711